HOTWC 2004 Draft Technical Program
3/15/2004

Tuesday, May 4

8:15 Opening Remarks, Richard Gann, Conference Chair

8:30 *KEYNOTE ADDRESS: THE FUTURE OF AEROSPACE*, Paul F. Piscopo, Executive Director (Retired), Defense Aerospace Initiative, Office of the Director, Defense Research and Engineering

9:30 SESSION: General

Novel Halon Alternative Concepts – Synergistic Development of Public and Private Sectors, J. Michael Bennett, Bennettech, LLC.

Next Generation Fire Suppression Technology Program: FY2004 Progress, Richard G. Gann, National Institute of Standards and Technology

10:20 Break

10:50 SESSION: Water Mist I

Fire Extinguishing of Gas Turbo Compressor Compartment by Water Mist, Sergey Tsarichenko, All-Russian Fire Protection Science & Research Institute; Aleksandr Klimenko and Tatjana Kulikova, ZAO Spetspozhengineering

Fire Suppression in Airliner Cargo Applications Using Low Pressure Dual Fluid Water Mist and Hypoxic Air, John Brooks, International Aero Technologies, Inc.

Development of Low Pressure Fine Water Spray for the Royal Navy: Results of Full Scale Trials, Mike Edwards and Andy Hooper, Ministry of Defence, Warship Support Agency; James Glockling, Fire Protection Association

12:05 Lunch

1:30 SESSION: Water Mist II

A Numerical Model for Water Mist Suppression of a Solid Plate in Boundary Layer Flow, Ramagopal Ananth, and Fredrick W. Williams, Naval Research Laboratory, Chuka C. Ndubizu, Geo-Centers, Inc.

Ultra-Fine Water Mist As A Total Flooding Agent: A Feasibility Study, K.C. Adiga, NanoMist Systems, LLC; Fredrick W. Williams, Naval Research Laboratory

The Effects of Air-borne Water Mist on the Local Burning Rate of a PMMA Plate in Boundary Layer Combustion, C.C. Ndubizu, Geo-Centers, Inc.; R. Ananth and F.W. Williams, Naval Research Laboratory

Measurement of Absolute Oxygen Concentration by Tunable Diode Laser Absorption Spectroscopy (TDLAS) in Very Fine Water Mist Environments, Andrew Awtry and James W. Fleming, Naval Research Laboratory; Volker Ebert, Heidelberg University

3:10 Break

3:30 SESSION: Water Mist III

Feasibility Evaluation Study of Very Fine Water Mist as a Total Flooding Fire Suppression Agent for Flammable Liquid Fires, Ronald S. Sheinson and Frederick W. Williams, Naval Research Laboratory; Scott Ayers, Geo-Centers, Inc.; K.C. Adiga and Robert F. Hatcher, NanoMist Systems

False Deck Testing of Nanomist™ Water Mist Systems, Eric W. Forssell, Joseph L. Scheffey and Philip J. DiNenno and Gerard G. Back, III, Hughes Associates, Inc.; K.C. Adiga and Robert F. Hatcher, Jr., NanoMist Systems, LLC; John P. Farley and Frederick W. Williams, Naval Research Laboratory

Feasibility Study Of Water Mist for Spacecraft Fire Suppression, Jean-Pierre Delplanque, Angel Abbud-Madrid, J. Thomas McKinnon, Sonny J. Lewis, and James D. Watson, Colorado School of Mines

Suppression of Premixed Flames by Water Mist in Microgravity: Findings from the Mist Experiment on STS-107, Angel Abbud-Madrid and J. Thomas McKinnon, Colorado School of Mines; Francine K. Amon, National Institute of Standards and Technology; Suleyman Gokoglu, NASA Glenn Research Center

5:10 Adjourn

6:00 Dinner at Albuquerque Marriott

Wednesday, May 5

8:30 SESSION: Non-aqueous Suppressants I

Environmentally Acceptable Fire Suppressants, J. Douglas Mather, Chemical Development Studies, Inc.; Robert E. Tapscott, GlobeTech, Inc.

Combustion Suppression of Methane by CO_2/CF_3Br, $CO_2/C_2F_4Br_2$ and N_2/CF_3I, Yaroslav A. Lisochkin and Vladimir I. Poznyak, Russian Scientific Center for Applied Chemistry; Evgeniy G. Belevtsev and Larisa N. Kunina, OZON Ltd.

Study of Effectiveness of Flame Suppression by Organophosphorus Compounds in Laboratory and Scaled-up Tests, Oleg P. Korobeinichev, Andrey G. Shmakov, Anatoly A. Chernov, Vladimir M. Shvartsberg, Denis A. Knyazkov, Valery I. Makarov, Institute of Chemical Kinetics & Combustion; Eduard E. Nifantev, Igor' Y. Kudryavtsev and Evgenii I. Goryunov, Russian Academy of Sciences; Valery P. Nikolin, Institute of Cytology and Genetics

Suppression Efficiency of Mixtures of Chemically Active Agents, Caimao Luo, Bogdan Z. Dlugogorski and Eric M. Kennedy, The University of Newcastle

10:10 Break

10:40 SESSION: Non-aqueous Suppressants II

FK-5-1-12 Performance Characteristics: Recent Developments, Brian P. Carnazza, John G. Owens PE, Paul E. Rivers PE, Justin S. Schmeer, 3M Industrial Chemicals Laboratory

Clean Agent Systems Testing Using a Sustainable Halon Replacement Alternative to HFCs, Bruce Christensen, Ansul, Inc.

Comparison Testing in a Simulated Data Processing/Telecommunications Facility: Gaseous Clean Agents and Automatic Sprinkler Systems, Mark L. Robin, Hughes Associates, Inc.

11:55 Lunch

1:20 SESSION: Agent Effectiveness

Fire Suppressant Distribution in an F-18 E/F Nacelle, David R. Keyser, INS, Inc.; John C. Hewson, Sandia National Laboratories

Predicting Fire Suppression in an F-18 E/F Engine Nacelle, John C. Hewson, Sandia National Laboratories; David R. Keyser, INS, Inc.

Narrow-Channel Apparatus: A New Technique For Examining the Effectiveness of Gaseous Fire Suppressants Against Fires of Solid Fuels, Haihui Wang, Bogdan Z. Dlugogorski, Jacqueline M. Hicks and Eric M. Kennedy, The University of Newcastle

Evaluation of the Hand-Held Fire Extinguisher on the M1A1, George Kaczmarczyk and William Bolt, U.S. Army Aberdeen Test Center

3:00 Break

3:30 SESSION: SPECIAL TOPICS

In-flight Suppressant Deployment Temperatures, Donald Bein, Naval Air Systems Command

Process For Conversion of Surplus Halons, CFCs and Contaminated HFCs into Fluoroelastomer Precursors, Eric M. Kennedy, Azhar Uddin, Hai Yu and Bogdan Z. Dlugogorski, The University of Newcastle

A Sequential Sampler for Evaluating Short-Term Occupational Exposure, Steven H. Hoke, U. S. Army Center for Health Promotion and Preventive Medicine; Mark F. Arnold, U. S. Army Medical Materiel Development Activity; Thomas D. Holmes, U. S. Army Aberdeen Test Center

4:45 DISCUSSION: Improving the HOTWC

5:15 Adjourn

6:00 Depart for dinner at El Pinto Restaurant

Thursday, May 6

8:30 SESSION: Agent Delivery

The Modification of the Characteristics of the Condensed Aerosol After Its Distribution Through the Pipelines, Vladimir V. Agafonov, Nikolay P. Kopylov, Sergey N. Kopylov, Vassily A. Uglov, Andrey V. Sychev, Dmitry B. Zhyganov, Elena V. Nikonova, All-Russian Scientific Research Institute for Fire Protection

Modeling Study of the Behavior of Liquid Fire Suppression Agents in a Simulated Engine Nacelle, James W. Fleming, Naval Research Laboratory; Jiann Yang, National Institute of Standards and Technology

Analysis of Velocity and Drop Size Distributions Downstream Generic Clutter Elements Found Within Engine Nacelles, Peter J. Disimile and James R. Tucker, USAF 46th Test Wing; Joe Stern, Luke Mehl, and Brian Croswell, University of Cincinnati

9:45 Break

10:10 SESSION: Agent Delivery II

The Effect of Optical Configuration Selection on Phase Doppler Anemometer Fire Suppressant Nozzle Characterizations, John M. Davis, University of Cincinnati; Peter J. Disimile, USAF 46th Test Wing

Heptafluoropropane With Water Spray Cooling System as a Total Flooding Halon 1301 Replacement: System Implementation Parameters, Ronald S. Sheinson, Naval Research Laboratory; Scott Ayers and Robert Anleitner, Geo-Centers, Inc.; Alexander Maranghides, National Institute of Standards and Technology

Examination of an Alternative Delivery Method for a Sustainable Clean Agent in a Total Flooding System, David M. Smith and Thomas W. Reser, Clean Agent Pumping Systems - Fire, Inc.

11:25 CLOSING REMARKS and HOTWC 2005

11:30 Adjourn HOTWC 2004